

## EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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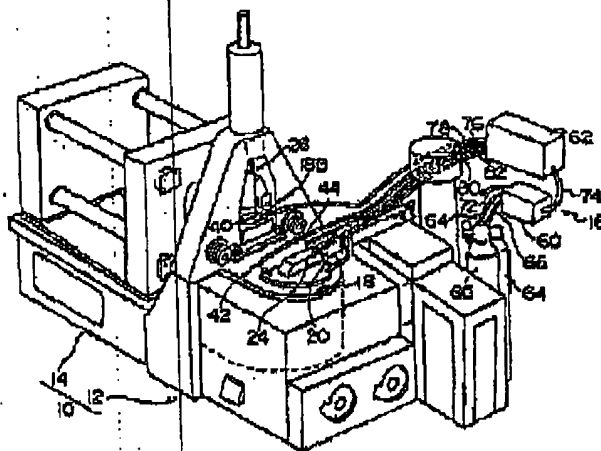
APPLICATION DATE : 24-11-94  
APPLICATION NUMBER : 06289988

APPLICANT : TOKAI RIKI CO LTD;

INVENTOR : HIROSE KOJI;

INT.CL. : C22B 26/22 F27B 3/22 F27D 7/02

TITLE : DEVICE FOR INTRODUCING  
PROTECTIVE GAS FOR PREVENTING  
COMBUSTION OF MOLTEN  
MAGNESIUM



ABSTRACT : PURPOSE: To prevent the combustion of molten magnesium and to obviate the corrosion of a melting furnace.

CONSTITUTION: The device 16 to introduce a protective gas for preventing the combustion of molten magnesium connected to the melting furnace 12 of a hot chamber-type die-casting machine 10 with a hose is provided with a gas mixer 60 and a constant flow rate device 62. A gaseous sulfur hexafluoride cylinder 64 and a gaseous carbon dioxide cylinder 66 are connected to the mixer 60 through hoses 68 and 70. An air suction hose 72 is connected to the mixer 60, air, gaseous sulfur hexafluoride and carbon dioxide are mixed in the mixer 60 to synthesize a protective gas for preventing the combustion of molten magnesium, and the concn. of sulfur hexafluoride in the protective gas is controlled to 0.3-0.8%.

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# SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number  
EP 00 92 0274

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |  |  |
|---|---|--|--|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim  | CLASSIFICATION OF THE APPLICATION (Int.Cl.7)                     |
| X   | DE 34 25 400 A (HILL STEFAN)<br>16 January 1986 (1986-01-16)  | 16   | C22B9/00<br>C22B26/22<br>B22D21/04<br>A62D1/00                   |
| Y   | * page 5, line 11 - line 26; claims 2-5 *   | 1-15   |  |
| Y   | PATENT ABSTRACTS OF JAPAN<br>vol. 1996, no. 10,<br>31 October 1996 (1996-10-31)<br>& JP 08 143985 A (TOKAI RIKI CO LTD),<br>4 June 1996 (1996-06-04)<br>* abstract *  | 1-15   |  |
| Y   | DATABASE WPI<br>Section Ch, Week 199338<br>Derwent Publications Ltd., London, GB;<br>Class E16, AN 1993-299895<br>XP002182150<br>& JP 05 214384 A (ASAHI CHEM IND CO LTD),<br>24 August 1993 (1993-08-24)<br>* abstract * | 1-15   |  |
| Y   | US 5 763 701 A (DEGER HANS-MATTHIAS ET AL)<br>9 June 1998 (1998-06-09)<br>* column 1, line 4 - line 9 *   | 1, 2, 5, 7, 14, 15   | TECHNICAL FIELDS SEARCHED (Int.Cl.7)<br><br>C22B<br>B22D<br>A62D |
| The supplementary search report has been based on the last set of claims valid and available at the start of the search.  |   |  |  |
| Place of search<br><b>THE HAGUE</b>   |   | Date of completion of the search<br><b>22 March 2004</b>   | Examiner<br><b>Bombeke, M</b>                                    |
| CATEGORY OF CITED DOCUMENTS<br>X: particularly relevant if taken alone<br>Y: particularly relevant if combined with another document of the same category<br>A: technological background<br>O: non-written disclosure<br>P: intermediate document |   | T: theory or principle underlying the invention<br>E: earlier patent document, but published on, or after the filing date<br>D: document cited in the application<br>L: document cited for other reasons<br>& : member of the same patent family, corresponding document |  |

2

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